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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/378,201	08/19/1999	CHI FAI HO	04073.P005	8839

7590 09/12/2002

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EXAMINER

HOM, SHICK C

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/378,201

Applicant(s)

HO ET AL.

Examiner

Shick C Hom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1-13, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s) _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/8/02 have been fully considered but they are not persuasive.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-7, 10-11, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, Jr. et al. in view of Ylonen et al.

Allen, Jr. et al. disclose nearly all the subject matter now claimed. Note col. 6 lines 43-50 which recite the method for transporting voice data from an originating location to a destination whereby the transporting is enabled by emulating a circuit by employing a circuit emulation service CES wherein the voice data is converted to ATM cells utilizing ATM adaptation layer 1 AAL1 or ATM adaptation layer 2 AAL2 and col. 16 line 55 to col. 17 line 8 which recite that the invention also applies to Internet services providers whereby the Internet user typically accesses the Internet by connecting to the Internet service

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provider via a dial up modem; however, unlike a voice connection, a modem connection carries bursty data with Internet Protocol IP packets clearly anticipate the method including the step of configuring a circuit emulation service CES over an Internet protocol IP network and the step of transporting the IP packets from a local interworking function to a remote interworking function according to the CES as in claims 1, 17, and 18.

Col. 16 line 55 to col. 17 line 8 which recite converting ATM data to IP packets and the Internet service providers transporting IP packets to the Internet user via the dial up modem and col. 10 line 64 to col. 11 line 5 which recite the AAL1 or AAL2 allow the choice of carrying voice trunks through an ATM network as constant bit rate traffic or variable bit rate traffic and that if voice is sent as constant bit rate traffic, then ATM Forum's structured DS1 nx64 Kbps circulation emulation service using AAL1 is employed and if voice is sent as real time variable bit rate traffic, then AAL2 as the ATM adaptation layer is employed, thus taking advantage of the many efficiency and performance enhancing features supported by AAL2 clearly anticipate encapsulating data at a constant bit rate at the local interworking function into IP packets and transporting IP packets as in claims 1, 17, and 18. Col. 6 lines 3-22 which recite the use of a centralized control and signaling interworking function

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CS-IWF device for performing call control functions and using AAL2 to support silence suppression and/or voice compression clearly anticipate exchanging CES control protocol information between the local and remote interworking function as in claim 6 and including the compression option as in claim 7. Col. 14 lines 19-40 which recite the step of buffering to accommodate cell delay variation introduced by the network and cell construction delay clearly anticipate the step of buffering IP packets for at least as long as the maximum delay variation as in claims 10-11.

Allen, Jr. et al. did not recite the tunnel between the local and remote interworking functions as in claims 1, 17, 18 to carry IP packets as in claim 3, wherein the tunnel includes layer 2 tunneling protocol L2TP as in claim 4 and the multi-protocol label switching tunnel as in claim 5.

Ylonen et al. teach that it is known to use multi-protocol label switching MPLS to carry labels that identify the virtual network that the packets belong to and alternatively, the L2TP protocol can be used to tunnel PPP point-to-point protocol streams over networks, and can also be used to carry labeling information as set forth at col. 2 lines 53-59 in the field of electrical computers and digital processing systems: multiple computer or process coordinating for the purpose of providing and

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enhancing secure transmission of data packets in a network having virtual routers which clearly anticipate the tunnel between the local and remote interworking functions to carry IP packets wherein the tunnel includes layer 2 tunneling protocol L2TP and the multi-protocol label switching tunnel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the tunnel between the local and remote interworking functions to carry IP packets wherein the tunnel includes layer 2 tunneling protocol L2TP and the multi-protocol label switching tunnel are used as in Ylonen et al. because Ylonen et al. teach the desirable added feature of secure transmission of data packets in a network having virtual routers and said added feature of secure transmission being desirable to achieve more efficient system operation in Allen Jr. et al.

5. Claims 2, 8-9 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, Jr. et al. in view of Ylonen et al. as applied to claim 1 above, and further in view of Rogers et al.

Allen, Jr. et al. in view of Ylonen et al. did not recite attaching a CES header comprising a version number to each IP

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packet as in claims 8-9, the circuit header comprising at least a circuit identification, a flag field, sequence number, octet padding values and a data field as in claims 12-13, and the maximum delay variation as in claim 2.

Rogers et al. teach that it is known to provide the step of traffic shaping for altering the traffic characteristics of a stream of cells on a VCC or a VPC to achieve a desired modification of those traffic characteristics, in order to achieve better network efficiency whilst meeting the QoS objectives or to ensure conformance at a subsequent interface whereby traffic shaping maintains cell sequence integrity on the connection as set forth at col. 3 lines 31-40 and FIG. 2 which shows the connection parameters written into the cell header in the field of digital and multiplex communications clearly anticipate the CES header comprising the version number to each IP packet, the circuit identification, the flag field, sequence number, octet padding values and data field as in claims 8-9 and 12-13. Col. 1 lines 48-57 which recite means for providing bounded packet delay variation (commonly referred to as cell delay variation) which clearly anticipate the maximum delay variation as in claim 2.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the CES

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header comprising the version number to each IP packet, the circuit identification, the flag field, sequence number, octet padding values and data field as taught by Rogers et al. to the system of Allen, Jr. et al. in view of Ylonen et al. because Rogers et al. teach the desirable advantage of achieving better network efficiency whilst meeting the QOS objectives and ensure conformance at a subsequent interface and said better network efficiency being desirable to achieve efficient system operation in Allen, Jr. et al. in view of Ylonen et al.

Allowable Subject Matter

6. Claims 14-16 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

7. Claim 19 is allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Loehndorf, Jr. et al. disclose a layer two tunneling protocol (L2TP) merging and management.

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9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal
Park II, 2121 Crystal Drive, Arlington. VA., Sixth
Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Shick Hom
whose telephone number is (703) 305-4742. The examiner's regular
work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and
out of office on alternate Friday.


If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Douglas Olms, can be
reached at (703) 305-4703.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

SH

September 7, 2002


DOUGLAS OLMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600